QUICK START GUIDE

RAM-6000 Series Router

GSM, CDMA or HSPA with Modbus

UNPACKING INSTRUCTIONS

1. Unpack the Red Lion unit and verify the following components are enclosed for the RAM-6000 Router:

RAM-6xxx: AC adaptre with either barrel connector (AC) or Molex (MX), or 15ft Molex cable (DC) can be ordered in a kit (ie RAM-6600-xx-AC or -MX) or ordered spearately. (RAM-6400 not available)

RAM-6x01-4: pin plug with screw terminals to connect to an external DC power source. Available wth AC adaper with barrel connector (AC).

RAM-6x21-4: pin plug with screw terminals to connect to an external DC power source. Available with AC adapter with barrel connector (AC).

Antennas sold separately.

2. Contact your cellular provider (carrier) and request a data account. For CDMA models (RAM-66xx), give the ESN number of the router to the carrier to activate the data account. For GSM and HSPA models (RAM-64xx & SN-68xx) the carrier should provide you with a SIM card to insert into the router, along with the APN, username & password for data connectivity.
3. Insert the SIM card (GSM and HSPA models only):
   - Locate the SIM slot on the right side of the unit.
   - Insert the card with its cut side facing forward and on the left.
   - Using the tip of a pen, push it in until it clicks.
4. An antenna with an SMA connector should be connected to the router. This antenna should meet the following specifications:
   - Dual Band 800 & 1900 MHZ
   - Nominal 50 ohm impedance
   - Voltage Standing Wave Ratio (VSWR) less than 2.5:1
5. There are 4 methods to provide power to the router:
   - 4-pin Molex connector - available on RAM-6x00
   - 4-pin screw terminal - available on RAM-6xx1/EB
   - Side mounted 2.5mm barrel connector - all models
   - Power-over-Ethernet - available on RAM-6x01EB

   The modem requires a power source between 8 and 30 VDC to operate.

LABEL	DESCRIPTION
GND	Ground
PWR+	Power 8 to 30 VDC (12 or 24 VDC nominal)
IN	Digital and analog input
OUT	Digital output

6. Please allow 2-4 minutes for the unit to recognize the cellular data card and connect to the cellular network. When this has occured, the Signal Strength LEDs should light up (see table on back). If signal strength is not lit or flashes slowly, please refer to the User Manual at www.redlion.net

ACCESSING THE WEB USER INTERFACE

1. **Connect PC to the RAM-6000 Router**

   Connect a CAT-5 Ethernet cable between the local PC and the unit's Ethernet port. Verify that the green LED is lit.

2. **Setup PC IP Address**

   For assistance with configuring your PC, see the appropriate Microsoft support webpage listed at:
   http://support.microsoft.com

   PC to Ethernet Interfaces

   Select "Use the following IP address" and fill in the blank fields with the information below:

	Ethernet 0
IP Address	192.168.0.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
Preferred DNS	192.168.0.1

3. **Access Web User Interface**

   Open a web browser and enter the following in the address bar:
   http://192.168.0.1:10000/

LOGIN INSTRUCTIONS

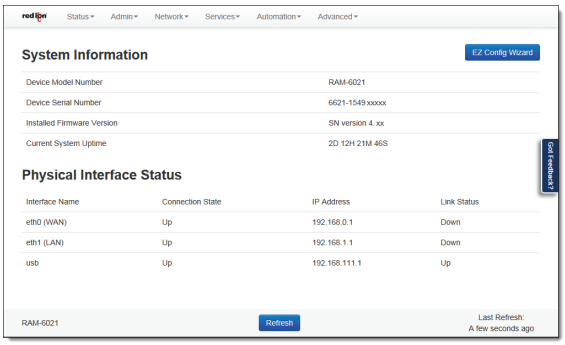
- **User Name:** admin (lowercase letters)
- **Password:** last six digits of the unit's serial number

Upon successfully logging in, the web UI will launch.

Note: For security purposes, it is recommended that the admin password be changed according to your internal policies.

To change password, go to: **Admin->Access Settings**.

Web UI:



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You are now connected to the web interface. If you should see anything other than the screen shown above, please refer to the RAM-6021 User Manual, located on our website: www.redlion.net.

For more information to set up Modbus features, please refer to the RAM-6021 User Manual.

HARDWARE STATUS LEDs

LED	State	Description
Power	ON	Power is applied to the router
Signal	ON	Excellent signal strength
	FLASH	Flashes faster as signal is stonger
	OFF	Very weak or no signal (less than -100dBm)
WAN	ON	Wireless link established, but no data activity
	FLASH	Data transmitted/received on wireless network
RS232	ON	Link established with serial device but no data activity
	FLASH	Data transmitted/received with attached serial device
Ethernet	ON	Link established with Ethernet device
	FLASH	Data transmitted/received

RED LION CONTROLS TECHNICAL SUPPORT

If you have followed all of the instructions up to this point, are satisfied that you are not having an authentication problem and your unit is still not communicating, then it it is time to contact Red Lion Technical Support at support@redlion.net or 1-877-432-9908.

INSTALLATION AND HAZARDOUS AREA WARNINGS

Suitable for use in Class I, Division 2, Groups A, B, C and D hazardous locations, or non-hazardous locations only. All power, input and output (I/O) wiring must be in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction.

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

WARNING - EXPLOSION HAZARD - BATTERIES MUST ONLY BE CHANGED IN AN AREA KNOWN TO BE NON-HAZARDOUS.

WARNING - EXPOSURE TO SOME CHEMICALS MAY DEGRADE THE SEALING PROPERTIES OF MATERIALS USED IN THE RELAYS.

AVERTISSEMENTS POUR INSTALLATION ET ENDROITS DANGEREUX

Cet équipement est adapté pour une utilisation en Classe I, Division 2, Groupes A, B, C et D pour endroits dangereux , ou endroits non-dangereux seulement. Tout câblage électrique, entrée et sortie (I / O) doivent être en conformité avec Classe I, Division 2 méthodes de câblage et conformément à l'autorité compétente.

AVERTISSEMENT - RISQUE D'AVERTISSEMENT - NE DÉBRANCHEZ PAS L'ÉQUIPEMENT PENDANT QUE LE CIRCUIT EST DIRECT OU À MOINS QUE L'ENVIRONNEMENT SOIT CONNU POUR ÊTRE NON-DANGEREUX.

AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE TOUT COMPOSANT PEUT NUIRE À LA CONFORMITÉ DE CLASSE I, DIVISION 2.

AVERTISSEMENT - RISQUE D'EXPLOSION - LES BATTERIES DOIVENT SEULEMENT ÊTRE REMPLACÉES DANS UNE ZONE RECONNUE COMME ÉTANT NON-DANGEREUSE.

AVERTISSEMENT - L'EXPOSITION À CERTAINS PRODUITS CHIMIQUES PEUT DÉGRADER LES PROPRIÉTÉS D'ÉTANCHÉITÉ DES MATÉRIAUX UTILISÉS DANS LES RELAIS ÉTANCHE PÉRIPHÉRIQUE.

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